

Serial No. 10/080,982 - Johnston
Art Unit: 3652 - Docket 1266.015
Response to Office Action dated October 20, 2004
Page 2 of 16

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A triangulated mobile gantry comprising:

(A) first, second, and third booms, each of which comprises a mobile base that is independently supported on the ground and a vertically extendible lift leg supported on said base and having an upper end, said first boom being positioned laterally between and longitudinally remote from said second and third booms, wherein first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle;
and

(B) a plurality of horizontal beams that functionally interconnect said lift legs and that are raisable with coordinated lifting of said first, second, and third booms to lift a load, and wherein at least one of the beams is linearly extendible to increase the horizontal spacing between two of said booms.

2. (Currently Amended) ~~The gantry as recited in claim 1,~~ A triangulated mobile gantry comprising:

(A) first, second, and third booms, each of which comprises a mobile base that is independently supported on the ground and a vertically extendible lift leg supported on

{00068289.DOC /}

Serial No. 10/080,982 - Johnston
Art Unit: 3652 - Docket 1266.015
Response to Office Action dated October 20, 2004
Page 3 of 16

said base and having an upper end, said first boom being positioned laterally between and longitudinally remote from said second and third booms; and

(B) a plurality of horizontal beams that functionally interconnect said lift legs and that are raisable with coordinated lifting of said first, second, and third booms to lift a load, and wherein at least one of the beams is linearly extendible to increase the horizontal spacing between two of said booms, and wherein said beams include first, second, and third beams functionally interconnecting said upper ends of said lift legs to form an at least essentially triangular shape when viewed in top plan.

3. (Previously Presented) A triangulated mobile gantry comprising:

(A) first, second, and third booms, each of which comprises a mobile base that is independently supported on the ground and a vertically extendible lift leg supported on said base and having an upper end, said first boom being positioned laterally between and longitudinally remote from said second and third booms; and

(B) a plurality of horizontal beams that functionally interconnect said lift legs, wherein said beams include first, second, and third beams functionally interconnecting said upper ends of said lift legs to form an at least essentially triangular shape when viewed in top plan, and wherein said first and second beams are extendible to increase the spacing between said first and second booms and said first and third booms, respectively.

{00068289.DOC /}

Serial No. 10/080,982 - Johnston
Art Unit: 3652 - Docket 1266.015
Response to Office Action dated October 20, 2004
Page 4 of 16

4. (Previously Presented) The gantry as recited in claim 3, wherein each of said first and second beams comprises a telescoping tube assembly comprising at least one inner tube and at least one outer tube slidable over the inner tube.

5. (Original) The gantry as recited in claim 4, where each of said first and second beams comprises a single inner tube positioned at least generally centrally of said beam, a first outer tube extending from said inner tube to the lift leg of said first boom, and a second outer tube extending from said inner tube to the lift leg of the associated one of said second and third booms, each of said outer tubes being extendible and retractable relative to said inner tube.

6. (Original) The gantry as recited in claim 5, wherein each of said first and second beams further comprises a pair of cylinders, each of which is operable to extend and retract one of said outer tubes relative to said inner tube.

7. (Previously Presented) A triangulated mobile gantry comprising:

(A) first, second, and third booms, each of which comprises a mobile base that is independently supported on the ground and a vertically extendible lift leg supported on said base and having an upper end, said first boom being positioned laterally between and longitudinally remote from said second and third booms; and

(B) a plurality of horizontal beams that functionally interconnect said lift legs, wherein said beams include first, second, and third beams functionally interconnecting said upper ends of said lift legs to form an at least essentially triangular shape when

(00068289.DOC /)

Serial No. 10/080,982 - Johnston
Art Unit: 3652 -- Docket 1266.015
Response to Office Action dated October 20, 2004
Page 5 of 16

viewed in top plan, and wherein said third beam is extendible to increase the spacing between said second and third booms.

8. (Original) The gantry as recited in claim 7, wherein said third beam comprises a hydraulic cylinder extending between said first and second beams.

9. (Original) The gantry as recited in claim 2, wherein each of said first and second beams has multiple mounting points in the vicinity of said second and third booms, respectively, for selectively receiving an associated end of said third beam at one of a plurality of discrete mounting locations.

10. (Previously Presented) The gantry as recited in claim 1, wherein said first boom comprises a front boom located adjacent a lateral centerline of said gantry and said second and third booms are rear booms located on opposite sides of said lateral centerline.

11. (Original) The gantry as recited in claim 1, wherein each of said mobile bases comprises a wheel.

12. (Original) The gantry as recited in claim 1, wherein each of said bases is rotatable through an angle of 360 ° relative to the associated lift leg.

13. (Currently Amended) A triangulated mobile gantry comprising:

(A) first, second, and third booms, each of which comprises a mobile base and a vertically extendible lift leg supported on said base and having an upper end, said

(00068289.DOC /)

Serial No. 10/080,982 - Johnston
Art Unit: 3652 - Docket 1266.015
Response to Office Action dated October 20, 2004
Page 6 of 16

mobile base being rotatable through an angle of at least 360 ° with respect to said lift leg to steer said gantry, wherein

(1) said first boom is a front boom positioned at a lateral centerline of said gantry;

(2) said second and third booms are rear booms positioned on opposite sides of said lateral centerline;

(3) first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle;

(B) first and second lift beams functionally interconnecting the lift legs of said first and second booms and said first and third booms, respectively; and

(C) a rear cross beam functionally interconnecting the lift legs said second and third booms to one another, wherein the first and second lift beams are raisable with coordinated lifting of said first, second, and third booms to lift a load, and wherein at least one of the beams is linearly extendible to increase the horizontal spacing between two of said booms.

14. (Currently Amended) A triangulated mobile gantry comprising:

(A) first, second, and third booms, each of which comprises a mobile base and a vertically extendible lift leg supported on said base and having an upper end, said mobile base being rotatable through an angle of at least 360 ° with respect to said lift leg to steer said gantry, wherein

{00068289.DOC /}

Serial No. 10/080,982 - Johnston
Art Unit: 3652 - Docket 1266.015
Response to Office Action dated October 20, 2004
Page 7 of 16

(1) said first boom is a front boom positioned at a lateral centerline of said gantry;

(2) said second and third booms are rear booms positioned on opposite sides of said lateral centerline;

(3) first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle;

(B) first and second lift beams functionally interconnecting the lift legs of said first and second booms and said first and third booms, respectively; and

(C) a rear cross beam functionally interconnecting the lift legs of said second and third booms to one another, wherein

said first and second lift beams are extendible to increase the spacing between said first and second booms and said first and third booms, respectively, wherein each of said first and second lift beams comprises a single inner tube positioned at least generally centrally of said beam, a first outer tube extending from said inner tube to the lift leg of said first boom, and a second outer tube extending from said inner tube to the lift leg of the associated one of said second and third booms, each of said outer tubes being extendible and retractable relative to said inner tube.

15. (Original) The gantry as recited in claim 14, wherein each of said first and second lift beams further comprises a pair of cylinders, each of which is operable to extend and retract one of said outer tubes relative to said inner tube.

{00068289.DOC /}

Serial No. 10/080,982 - Johnston
Art Unit: 3652 - Docket 1266.015
Response to Office Action dated October 20, 2004
Page 8 of 16

16. (Currently Amended) A triangulated mobile gantry comprising:

(A) first, second, and third booms, each of which comprises a mobile base and a vertically extendible lift leg supported on said base and having an upper end, said mobile base being rotatable through an angle of at least 360 ° with respect to said lift leg to steer said gantry, wherein

(1) said first boom is a front boom positioned at a lateral centerline of said gantry;

(2) said second and third booms are rear booms positioned on opposite sides of said lateral centerline;

(3) first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle;

(B) first and second lift beams functionally interconnecting the lift legs of said first and second booms and said first and third booms, respectively; and

(C) a rear cross beam functionally interconnecting the lift legs said second and third booms to one another, wherein said rear cross beam comprises a hydraulic cylinder extending between said first and second lift beams and operatively connectable to each of said first and second lift beams at multiple discrete mounting locations.

17. (Currently Amended) A method comprising;

(A) moving a mobile triangulated gantry over a load by straddling said load with an open front end of said gantry and positioning said load longitudinally between

{00068289.DOC /}

Serial No. 10/080,982 - Johnston
Art Unit: 3652 - Docket 1266.015
Response to Office Action dated October 20, 2004
Page 9 of 16

said open front end and a closed rear end, said rear end of said gantry comprising a first boom positioned laterally between and longitudinally remote from second and third booms, wherein first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle;

(B) coupling at least one of first, second, and third horizontal beams to said load, said first, second, and third horizontal beams functionally interconnecting said first, second, and third booms to one another; and

(C) vertically extending said first, second, and third booms in a coordinated manner to raise said first, second, and third horizontal beams and to lift said load; and

(D) linearly horizontally extending at least one of said beams to increase the horizontal spacing between two of the booms.

18. (Currently Amended) A method comprising;

(A) moving a mobile triangulated gantry over a load by straddling said load with an open front end of said gantry and positioning said load longitudinally between said open front end and a closed rear end, said rear end of said gantry comprising a first boom positioned laterally between and longitudinally remote from second and third booms, wherein first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle;

{00068289.DOC /}

Serial No. 10/080,982 - Johnston
Art Unit: 3652 - Docket 1266.015
Response to Office Action dated October 20, 2004
Page 10 of 16

(B) coupling at least one of first, second, and third horizontal beams to said load, said first, second, and third horizontal beams functionally interconnecting said first, second, and third booms to one another;

(C) vertically extending said first, second, and third booms to lift said load;
and

(D) extending said third beam prior to said moving step so as to increase the spacing between said second and third booms sufficiently to permit a rear end of said gantry to straddle said load.

19. (Original) The method as recited in claim 18, further comprising extending said first and second beams to increase the length of said gantry.

20. (Previously Presented) The method as recited in claim 17, wherein each of said booms includes a base and a lift leg mounted on said base, and further comprising steering said vehicle by rotating the base of at least one of said booms through an angle of at least 360° with respect to the associated lift leg.

21. (New) A triangulated mobile gantry comprising:

(A) a boom assembly consisting of first, second, and third horizontally spaced booms, each of which comprises a mobile base that is independently supported on the ground and a vertically extendible lift leg supported on said base and having an upper end, said first boom being positioned laterally between and longitudinally remote from said second and third booms; and

{00068289.DOC /}

Serial No. 10/080,982 - Johnston
Art Unit: 3652 - Docket 1266.015
Response to Office Action dated October 20, 2004
Page 11 of 16

(B) a plurality of horizontal beams that functionally interconnect said lift legs and that are raisable with coordinated lifting of said first, second, and third booms to lift a load, and wherein at least one of the beams is linearly extendible to increase the horizontal spacing between two of said booms.

{00068289.DOC /}